

**JUNIOR PROJECTS
NIRSEF MODIFIED
Project Rules and Guidelines**

This completed form is required for JUNIOR projects competing in the NIRSEF and must be completed *prior to* experimentation.

The Northern Indiana Regional Science and Engineering Fair Executive Committee has attempted to modify the ISEF Project Rules and Guidelines for Junior Projects in order to make them clearer and easier to follow. In all cases, these rules and guidelines have been modified with the intent to do the following:

- **Protect the rights and welfare of the student researcher and human subjects**
- **Protect the health and well-being of animal subjects**
- **Follow federal, state and local regulations governing research**
- **Offer guidance to local Science Fair Sponsors**
- **Use safe laboratory practices and**
- **Address environmental concerns.**

With this intent, we have developed Junior Project Modified documents to distribute to Junior-level (grades 6 - 8) students who intend to participate in the NIRSEF.

Please note that all Junior Project paperwork must be completed *prior to* experimentation and placed in the students' project notebook for inclusion at the NIRSEF. All students must have the following document:

- **MODIFIED Checklist for Adult Sponsor Form (1)**

If the Checklist for Adult Sponsor Form (1) indicates that SRC approval must occur prior to experimentation, then the following forms will need to be completed (and in some cases, there may be other forms determined by the NIRSEF SRC):

- **MODIFIED Student Checklist Form (1A)**
- **MODIFIED Research Plan**
- **MODIFIED Approval Form (1B).**

Junior Project Safety Forms can be obtained from the local Fair Coordinator or can be obtained from the NIRSEF website at: www.science.nd.edu/nirsef by late October.

Questions or comments about this document can be directed to the Executive Director, Karen M. Morris, at: morris.3@nd.edu or (574) 631-6945.

HUMAN SUBJECTS

Junior projects involving Human Subjects must ensure to protect the subjects observed. This protection includes the consideration of subject safety and risk during physical activities and maintaining anonymity. The NIRSEF Committee recommends that the school set up an Institutional Research Board to assess and approve Human Subject research study.

Projects that require subjects to participate in activities in which they are not familiar or used to doing in a “typical” day are discouraged. Projects that identify subjects by name, birth date, phone number or other identifying characteristics are also discouraged.

Acceptable Junior Projects involving Human Subjects that *require no approval* include:

- Product testing of a student invention that doesn't pose a health hazard, does not collect personal data and feedback received is in direct reference to the project or product.
- Data/record review studies (e.g., baseball statistics, crime statistics) in which the data are taken from pre-existing data sets that are publicly available or published
- Behavioral observations of unrestricted, public settings (e.g., shopping mall, public park) in which **all** of the following apply:
 - no interaction with the individuals observed by the researcher;
 - no manipulation of the environment by the researcher;
 - no recording of personal identifiable data by the researcher.

Please note that research on group behavior where the researcher does not manipulate the subjects' behavior and the study does not involve more than minimal risk does not require consent forms as these studies are behavioral observations of groups in public settings (e.g., observing your classmates during lunch time).

In cases where no approval is needed, student researchers should inform their subjects regarding their research project to allow the subjects to make an educated decision as to their participation. **IN ALL CASES, SUBJECTS SHOULD BE ALLOWED TO OPT OUT OF PARTICIPATION AT ANY STAGE OF THE STUDY.** The information provided to subjects should include: risks and benefits of participating in the research, the fact that subjects will remain anonymous (no identification of subjects to research) and that subjects can opt out of participation at any stage in the study.

VERTEBRATE ANIMALS

The NIRSEF discourages the use of vertebrate animals in all research (this includes fish, amphibians, reptiles, birds and mammals). This definition of vertebrate animals also extends to live, non-human vertebrate mammalian embryos or fetuses, bird and reptile eggs and all other non-human vertebrates. Invertebrates animals (such as insects), however, are approved for study.

Vertebrate and invertebrate studies that are prohibited include: induced toxicity (e.g., feeding animals alcohol, acid rain, insecticide, herbicide, heavy metals, etc.), behavioral experiments, studies of pain, and predator/prey experiments (e.g., placing a cricket in front of a preying mantis to observe the results).

JUNIOR PROJECTS

MODIFIED Checklist for Adult Sponsor Form (1)

This completed form is required for JUNIOR projects competing in the NIRSEF and must be completed *prior to* experimentation.

To be completed by the Adult Sponsor in collaboration with the Student Researcher:

Student Researcher's Name _____

If part of a Team Project, indicate Team Member Names: _____

Project Title _____

(please check boxes when complete)

- 1) The student researcher and I have reviewed NIRSEF MODIFIED Project Rules and Guidelines for Junior Projects.
- 2) The student researcher and I have worked together and discussed the possible risks involved in the project.
- 3) The student researcher and I have evaluated the project in the following Safety Concern Areas. If the project is to include any of the areas below, the box has been checked to indicate this.
 - Human Subjects

 - Vertebrate Animals

 - Potentially Hazardous Biological Agents

 - Hazardous Chemicals, Activities or Devices (please specify below)
 - Controlled Substances:** DEA-Controlled substances and prescription drugs are controlled substances and, therefore, prohibited from use. Consumable ethyl alcohol is also prohibited in Junior Project Studies. Tobacco, although regulated, can be used in projects under supervision.

 - Firearms:** This includes "toy" projectile guns (e.g., "potato" gun).

 - Explosives:** Study of explosives is prohibited.

 - Hazardous Chemicals:** Studies of or using hazardous, flammable, highly toxic materials; carcinogens; mutagens and all pesticides.

 - Hazardous Devices:** Use of welders; lasers; voltage greater than 220 volts, high vacuum equipment, heated oil baths, NMR equipment, UV lights, high-temperature ovens.

 - Radiation:** Use of x-ray or nuclear; unshielded ionizing radiation of 100-400 nm wavelength.
- 4) The student researcher and I have reviewed the project and have at least **1** Safety Concern Area box checked. The student researcher and I understand that we must complete all **JUNIOR PROJECT SAFETY FORMS** according to NIRSEF guidelines and get approval **BEFORE** experimentation begins. The signature below indicates that we agree to obtain and complete these forms from our local Fair Coordinator or NIRSEF.

OR

- 5) The student researcher and I determined that no boxes should be checked in Section 3) above and the signature below indicates that the student is ready to start the project.

Adult Sponsor Printed Name

Signature

Date of Review
(Must be prior to experimentation)

JUNIOR PROJECTS
MODIFIED Student Checklist Form (1A)
This completed form is required for JUNIOR projects competing in the NIRSEF.
Type or print all information requested.
Answer all questions and complete Research Plan Attachment

1) Student/Team Leader Name _____ Grade _____

Email _____ Phone _____

Is this a Team Project (check appropriate box)? Yes No

If Yes:
 Team Member Name _____

Team Member Name _____

2) Title of Project _____

3) School _____ School Phone _____

School Address _____

4) Adult Sponsor _____ Phone/Email: _____

5) Is this project a continuation from a previous year (if "No", skip to #6)? Yes No

If Yes:
 a) Attach the previous year's **Abstract,** **Form (1A)** and **Research Plan**
 b) Explain how this project is new and different from previous years on **Separate Page**

If No:

6) **This year's** laboratory experiment/data collection will begin: (must be stated (mm/dd/yy))
 Projected Start Date: _____ Projected End Date: _____

ACTUAL Start Date: _____ ACTUAL End Date: _____

7) Where will you conduct your lab work? (check all that apply)

Research Institution School Field Home

8) Name, address, phone and e-mail contact at non-school work site(s) (list additional sites on reverse side):

<i>SITE 1</i>	<i>SITE 2</i>
Name of site:	Name of site:
Address	Address
Phone	Phone
E-mail Contact	E-mail Contact

Complete the **MODIFIED Research Plan** (for Junior Projects) and attach to this form.

JUNIOR PROJECTS

MODIFIED Approval Form (1B)

This completed form is required for JUNIOR projects competing in the NIRSEF and must be completed *prior to* experimentation.

1) COMPLETED BY STUDENT AND PARENT/GUARDIAN:

a) Student Acknowledgments (check boxes and sign):

I understand the risks and possible dangers to me of my proposed research plan. I will adhere to all NIRSEF MODIFIED Project Rules and Guidelines when conducting this research.

I have read and will abide by the following personal standards statement:
I understand that I represent myself and my research as honestly as possible. I will not knowingly plagiarize, forge, use or present someone else's work as my own. I will not make up data. I understand that dishonest practices may disqualify me from competition in NIRSEF.

Student Printed Name	Signature	Date Acknowledged (Must be prior to experimentation)
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b) Parent/Guardian Approval: I have read and understand the risks and possible dangers involved in the **Research Plan**. I consent to my child participating in this research.

Parent/Guardian Printed Name (experimentation)	Signature	Date of Approval (Must be prior to experimentation)
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2) COMPLETED BY THE SRC (SIGN 2a OR 2b AS APPROPRIATE.):

a) Required for projects that need prior SRC/IRB approval BEFORE experimentation

The SRC/IRB has carefully studied this project's **Research Plan** and all the required forms are included. My signature indicates approval of the **Research Plan** before the student begins experimentation.

SRC/IRB Chair Printed Name	
Signature	Date

OR

b) Required for research conducted at all Regulated Research Institutions with no prior fair SRC/IRB approval.

This project was conducted at a regulated research institution (**not home or high school, etc.**), was reviewed and approved by the proper institutional board before experimentation and complies with the ISEF Rules. **Attach required institutional approvals.**

SRC/IRB Chair Printed Name	
Signature	Date

NOTE: If a stamp is used, it must be initialed by the chairperson.

3) FINAL ISEF AFFILIATED FAIR SRC APPROVAL (REQUIRED FOR ALL PROJECTS)

SRC Approval After Experimentation and Shortly Before Competition at the Northern Indiana Regional Science and Engineering Fair

I certify that this project adheres to the approved **Research Plan** and complies with all ISEF Rules.

Regional SRC Chair Printed Name	Signature	Date of Approval
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